



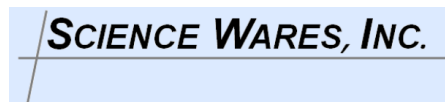
Town of Eastham, MA

Eastham Board of Selectmen Update on Wastewater Management Planning and Funding

August 19, 2019

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History

Federal Water Pollution Control Act 1948 was the first major law to address Water Pollution

Amended in 1972, commonly known as “Clean Water Act” gave EPA authority to implement pollution control programs and set water quality standards

Amended further in 1977, 1981 and 1987

Reemphasized the ambitious goal of attaining fishable and swimmable waters throughout the nation

Current Regulatory Requirement

CCC and Towns are obligated under settlement agreement between Conservation Law Foundation (CLF) and EPA to designate Waste Treatment Management Agencies to perform duties defined in the Clean Water Act. Eastham is a designated WMA.

CCC submitted Section 208 Cape Cod area wide water quality management Plan update (208 Plan Update) certified by Governor Baker in June 2015 and submitted to EPA

Eastham is obligated to develop and implement strategies to achieve acceptable water quality standards that comply with Total Maximum Daily Load established in MEP reports

Wastewater Planning effort history

**Interim Needs Assessment Report and
Alternatives Screening Analysis Report (March 2009)**

**Wastewater Management Planning Project
Plan Evaluation Report
(June 2009)**



Human Health Needs

Public water supply
\$138,000,000:
Project Total
\$59,000,000*



Environmental Health Needs

**Nauset-Town Cove
Estuary - advanced
treatment**
\$630,000**

**Rock Harbor
Estuary re-
classification
and/or advanced
treatment**

**Freshwater
ponds
treatment**
\$610,000**

* = estimated to date, including FY 2019

** = estimated to date, including FY 2020

Wastewater Planning effort history

2006-2010

- Final Interim Needs Assessment Report (NAR) and Alternatives Screening Analysis (ASAR) Report
- Wastewater Management Planning Project Plan Evaluation Report

2011

- Ponds Action Plan

2012

- Herring Pond Alum Treatment and Monitoring

2013

- Great Pond Alum Treatment and Monitoring

2014

- Continued wastewater planning and technical support
- Municipal Water System Design

Wastewater Planning effort history

2015

- Technical Memorandum No. 1 – Update to Wastewater and Nitrogen Management Needs Assessment
- Technical Memorandum No. 2 – Update to Wastewater and Nitrogen Management Alternatives Screening Analysis
- Municipal Water System Construction and Engineering Services

2016

- Watershed Reports for Boat Meadow, Herring River, Rock Harbor, Town Cove-Nauset Marsh, and Wellfleet Harbor
- Municipal Water System Construction and Engineering Services

Wastewater Planning effort history

2017

- Water quality update - technical memorandum – Salt Pond
- Eastham WW Management Plan, Initial Hybrid Approach for Salt Pond Technical Memorandum
- Eastham WW Management Plan, Initial Hybrid Approach for Town Cove Technical Memorandum
- Municipal Water System Construction and Engineering Services

2018

- Water quality update - technical memorandum – Salt Pond
- Vegetation Survey Analysis and Report – Schoolhouse/Ministers Pond
- Salt Pond Shellfish Feasibility Technical Memorandum
- Salt Pond Groundwater Analysis and PRB Investigation Technical Memorandum
- Municipal Water System Construction and Engineering Services

Wastewater Planning

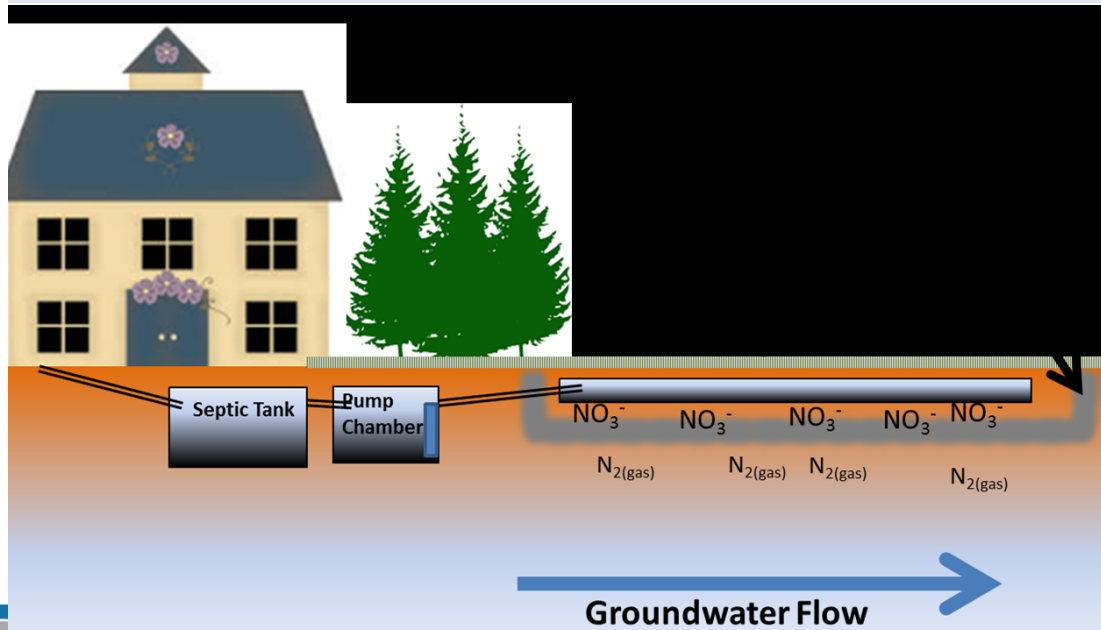
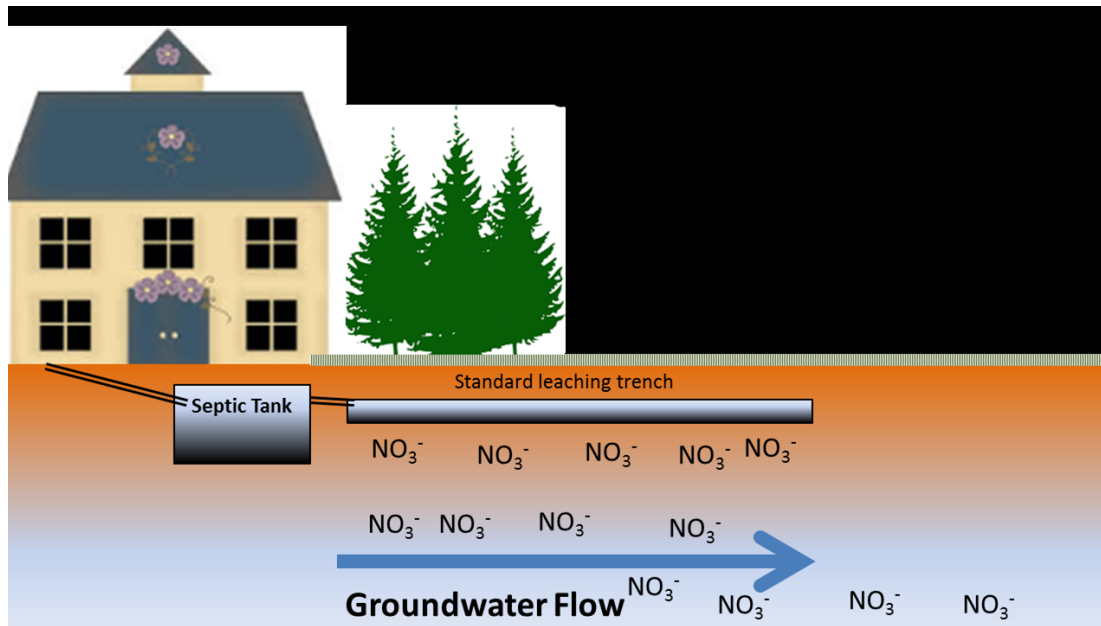
2019

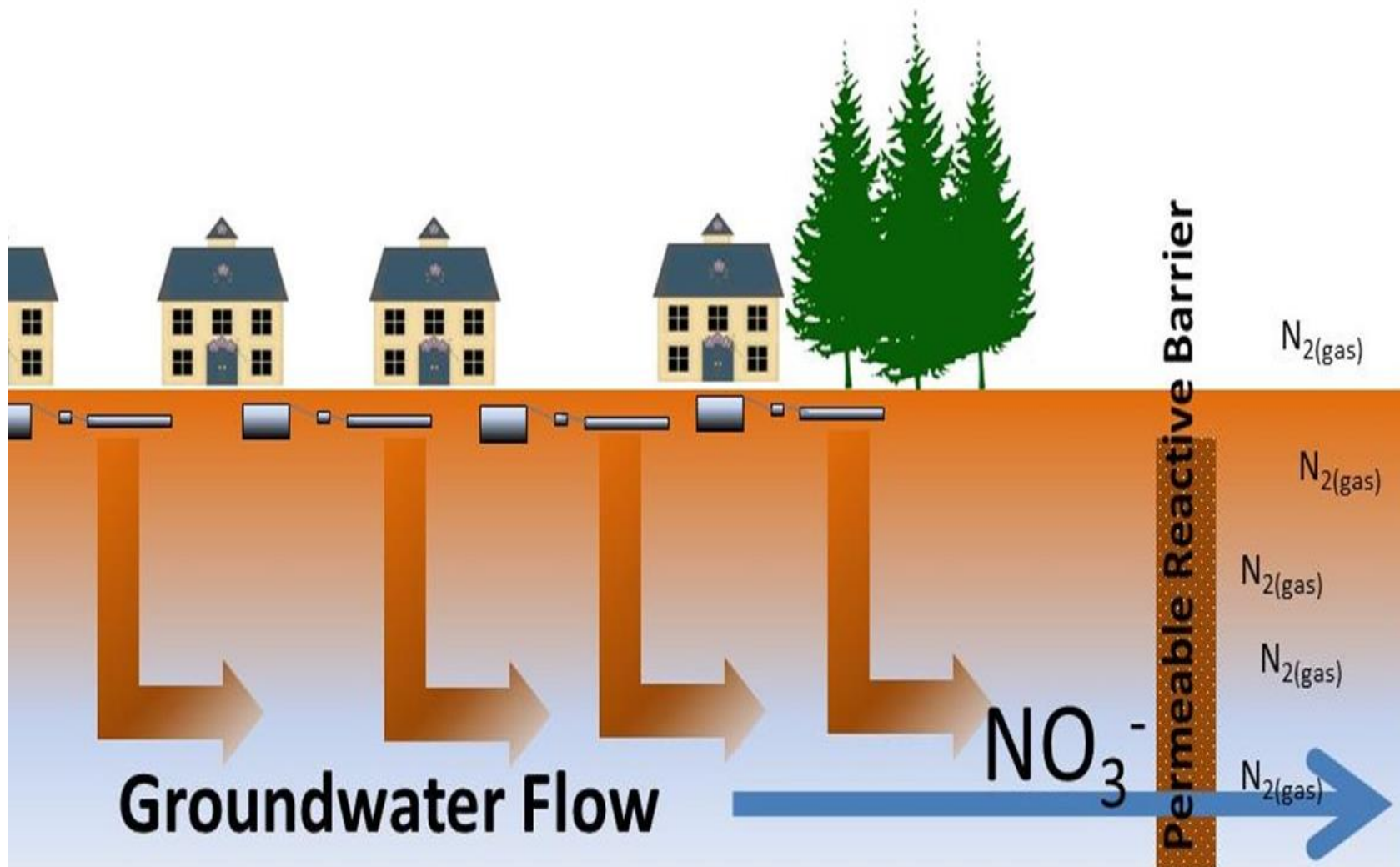
- Hydrogeological Investigation PRB Study Area, Detailed characterization of the Salt Pond Watershed, Complete Summary Report
- Route 6/Salt Pond Drainage Improvements
- Shellfish Pilot Plan Development – Salt Pond
- PRB Pilot Planning and Design
- TWMP Outline for Nauset Estuary/Eastham
- Develop Pond remediation strategy for Schoolhouse Minister Pond
- Continued monitoring of fresh water ponds and Nauset Estuary
- Work with CCNSS to evaluate and reduce the impact from the onsite wastewater system at Salt Pond visitor Center
- Adopt Board of Health Regulations to limit nitrogen loading
- Outline a public outreach and education program consistent with the Cape Cod area wide water quality management plan to improve communication
- Municipal Water System Construction and Engineering Services

Wastewater Planning

2020

- Regional coordination with Orleans and CCNSS
- PRB Pilot Planning design, permitting and installation at Salt Pond
- Evaluate effectiveness of PRB by monitoring
- Evaluate results of upgrade of the CCNSS septic system
- Prepare Targeted Watershed Management Plan move toward implementation
- Prepare conceptual preliminary design of storm water collection system – Schoolhouse/Minister Pond Route 6 outfall, develop cost estimate and peruse funding with APCC for Mass DOT construction
- Complete final engineering design for storm water system, obtain permits and initiate construction of storm water system at Park Street
- Final Layout and permitting of Shellfish Pilot Project
- Install and evaluate I/A Pilot Wastewater system to remove phosphorus and nitrogen in Nauset Harbor Estuary
- Continued Pond and Estuary Monitoring
- Continued Community engagement and education





Watershed Planning

Salt Pond

Shellfish Pilot Study

Upgrade of CCNS Treatment System

Stormwater Improvements Schoolhouse/Ministers Pond

PRB Design & Pilot

Collaborative Efforts and Hybrid Implementation

Targeted Watershed Management Plan "Core Sewer Area"

Watershed Permit

Regional Approach Discussions with Orleans

Flow Neutral Policy Development

0% SRF Financing

**Town Cove
Rock Harbor**

TMDL Compliance